

Jim Glomb
Geotechnical and Environmental Consulting, Inc.

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October 5, 2005
Project 722

Mr. Leo Bleier
Little Bakers Market
6951-A East Road
Redwood Valley, California 95470

Dear Mr. Bleier:

RE: **Fourth Quarterly Groundwater Well Monitoring - September 2005**
Little Bakers Market
6951-A East Road
Redwood Valley, California

Introduction

Jim Glomb Consulting is pleased to submit this report for the fourth quarterly groundwater well monitoring at the subject site in Redwood Valley, California. The purpose of our work was to further delineate and monitor groundwater conditions within the site and in a downgradient direction from the former underground fuel storage tanks and to provide recommendations for additional site work or site closure. Our fieldwork was performed on September 7, 2005.

Scope of Work

The scope of our work was as follows:

- Task 1: Site background review.
- Task 2: Monitoring of the 3 existing wells on the site. Soil samples were tested for TPHG, BTEX, and MTBE.
- Task 3: Preparation of this report summarizing our findings, conclusions and recommendations.

Site Location and Description

Site Description

The subject property consists of a market/commercial building with a former underground fuel storage tank/filling island site on a level to gently sloping lot south of the town of Redwood

Valley at the intersection of East Road and Road A. The former underground tank site is located in an asphalt paved parking/driveway area between the northwest corner of the store and East Road. The site is bounded on the west by East Road and on the north by Road A.

History

We understand that on January 8, 1999, three 10K gallon USTs were removed from the site and the open excavation was backfilled with the excavated soil. The tanks were founded at a depth of about 11 feet. Apparently, overexcavation was made to 15 to 16 feet and five soil samples were obtained and tested. Test results showed highs of 7.1 ppm for TPH as gasoline and 5.5 ppm for MTBE. No groundwater was encountered in the open pit.

Our exploration at the site, on October 29, 2002, encountered non-detect results for all soil samples tested. Tests of groundwater samples showed results of 3 ppm for TPHG, 16 ppb for benzene and up to 270 ppb for MTBE. A year-long monitoring program began in November 2004. Groundwater results for the last two events were non-detect for TPHG, Benzene and MTBE.

Geology and Hydrogeology

The site is underlain by alluvial deposits consisting of sand and gravel with clayey pockets. Groundwater was initially encountered on the site at about 17 feet during our previous investigation. Groundwater levels probably fluctuate seasonally and may be shallower during the winter months. The groundwater flow direction was calculated to be to the west.

Site Health and Safety Plan

As required by 29 CFR 1910.120, Jim Glomb Consulting, a registered geologist, prepared a Site Health and Safety Plan based on known site conditions and suspected contaminants. Our fieldwork was performed in accordance with this site-specific health and safety plan.

Work Description

Groundwater Elevation Measurement

The depth of water in each well was measured to 1/100 of a foot, prior to well purging, relative to the top of the surveyed PVC well casing, using an electronic sounder. These stabilized depths to water and groundwater elevations are given in Table 2 below. These data were used to calculate site groundwater flow direction and gradient on the date of sampling, September 7, 2005, and are presented on the Site Plan, Plate 1.

Monitoring Well Sampling

Monitoring wells MW-1 through MW-3 were sampled and tested on September 7, 2005 and represent the fourth event in a quarterly groundwater monitoring program. Following an initial water level measurement, groundwater was inspected for a liquid hydrocarbon layer with a disposable bailer. No floating product was detected in the wells sampled. The wells were then purged a minimum of four casing volumes with a pre-cleaned purge pump. After wells were

evacuated, they were allowed to recover to at least 80 percent of their initial water level prior to sample collection. Measurements of pH, conductivity and temperature were taken at each well during purging. Once the water chemistry stabilized, sampling was performed. The samples were collected using a disposable polyethylene bailer and placed into sterile 100 ml VOA and 1-liter amber glass containers. Samples were placed in an ice chest with blue ice and transported to Analytical Sciences in Petaluma, California for chemical analysis under chain-of-custody control. The completed chain-of-custody record is included in the analytical report from the laboratory in Appendix B. Well purging data and measured groundwater levels are summarized below.

Purge water was stored in sealed 55-gallon steel drums, which have been relocated to a location inaccessible to the public east of the former tank site.

TABLE 1
WELL PURGING DATA

<i>Well</i>	<i>Turbidity</i>	<i>Gallons Purged</i>	<i>pH</i>	<i>Temp (F°)</i>	<i>Specific Conductance</i>	<i>TDS</i>
MW-1	273	5.25	6.48	71.2	939	462
		10.00	6.47	72.5	1000	499
		17.25	6.50	69.8	990	503
MW-2	170	6.00	6.52	69.4	464	220
		12.50	6.29	65.6	435	218
		17.50	6.51	66.9	438	220
MW-3	334	4.00	6.43	67.2	334	175
		7.25	6.44	67.8	344	170
		11.00	6.21	66.0	352	175

Groundwater Flow Direction and Gradient

Groundwater was measured in the wells at depths ranging from 17.25 to 17.50 feet below the top of the well casings. Groundwater flow direction and gradient at the site were calculated by triangulation and contouring, using the three wells. The measured water levels and calculated groundwater elevations are provided below in Table 2 - Groundwater Levels. As shown in Plate 2, the groundwater flow direction on the site at the time of measurement was 827W at a gradient of 0.03 ft/ft.

TABLE 2
GROUNDWATER LEVELS

<i>Well</i>	<i>Depth to Water</i>	<i>Well Elevation</i>	<i>Groundwater Elevation</i>
MW-1	17.25	703.40	686.15
MW-2	17.50	701.32	683.82
MW-3	17.30	701.08	683.78

Findings

General

During this event, monitoring wells MW-2 and MW-3 were in a verified downgradient direction from the former tanks at the site.

Groundwater Analytical Results

One groundwater sample was collected from each monitoring well after purging, and tested for TPHG, BTEX, and MTBE. Analytical results were non-detect for all of the substances, except for a near detection limit result for MTBE. Table 3 below summarizes the laboratory test results for groundwater for this event. The laboratory report is presented in Appendix B.

TABLE 3
SUMMARY OF LABORATORY RESULTS

<i>Sample</i>	<i>Date</i>	<i>TPHG (ug/L)</i>	<i>MTBE (ug/L)</i>	<i>Benzene (ug/L)</i>	<i>Toluene (ug/L)</i>	<i>Ethyl-benzene (ug/L)</i>	<i>m,p,-Xylene (ug/L)</i>	<i>o-Xylene (ug/L)</i>	<i>4 Oxy. Add. (ug/L)</i>
MW-1	11/12/04	ND	2.4	ND	1.6	ND	ND	ND	ND
	2/24/05	ND	ND	ND	8.2	ND	ND	ND	ND
	6/3/05	ND	2.6	ND	ND	ND	ND	ND	ND
	9/7/05	ND	3.8	ND	ND	ND	ND	ND	ND
MW-2	11/12/04	ND	60	ND	ND	ND	ND	ND	ND
	2/24/05	ND	ND	ND	ND	ND	ND	ND	ND
	6/3/05	ND	ND	ND	ND	ND	ND	ND	ND
	9/7/05	ND	10	ND	ND	ND	ND	ND	ND
MW-3	11/12/04	ND	ND	ND	ND	ND	ND	ND	ND
	2/24/05	ND	ND	ND	ND	ND	ND	ND	ND
	6/3/05	ND	ND	ND	ND	ND	ND	ND	ND
	9/7/05	ND	ND	ND	ND	ND	ND	ND	ND

Conclusions

All contaminants tested were non-detect except MTBE, which increased since the last monitoring from 2.6 to 3.8 in MW-1 and from non-detect to 10 in MW-2. The MTBE plume is confined to a small portion of the site as shown in Plate 3.

The current results from MW-1 are below the Water Board water quality objective of 5 ppb for MTBE. Results from MW-2 have reduced from 60 to 10 ppb between the first and fourth events. The contaminant concentration forecast for MTBE for MW-2, presented in Plate 4, predicts that the concentration will fall within water quality objectives by December 2005.

Recommendations

Based on the non-detect or near-detection limit concentrations of MTBE in MW-1 and MW-3 and the reducing concentration in MW-2, we request that site closure be granted and that no further action be required.

Limitations

Our work has been performed in accordance with generally accepted environmental consulting practices. We provide no other guarantees or warranties, either expressed or implied. The conclusions and recommendations in this report are qualitative judgments based on limited information.

Our scope of work was limited groundwater testing at selected locations on the site. Further subsurface investigation, sampling, or chemical analyses could reveal conditions different from those inferred by our limited sampling and observation. Work described in this report does not include defining the exact limits of, or the environmental or public health impact of, known or suspected contamination.

We have endeavored to determine as much as practical about the site given the scope of our service agreement and what we consider to be a reasonable amount of effort. Additional evaluation could result in information that would lead us to revise our conclusions. While we consider work of the type described herein to be valuable in evaluation of potential contamination, we also must advise the client that our investigation may not have revealed contamination that is actually present on the site at other locations.

We trust this provides the information you require at this time. If you have questions or wish to discuss this further, please call.

Very truly yours,
Jim Glomb Consulting, Inc.

Jim Glomb
Certified Engineering Geologist

Attachments: Appendix A - Plate 1 - Site Plan and Vicinity Map
Plate 2 - Groundwater Contour Map
Plate 3 - Isoconcentration Map for MTBE
Plate 4 - Projected MTBE Concentrations in MW-2
Figure 1 - Well Monitoring Form
Appendix B - Analytical Laboratory Test Results and Chain of Custody Forms

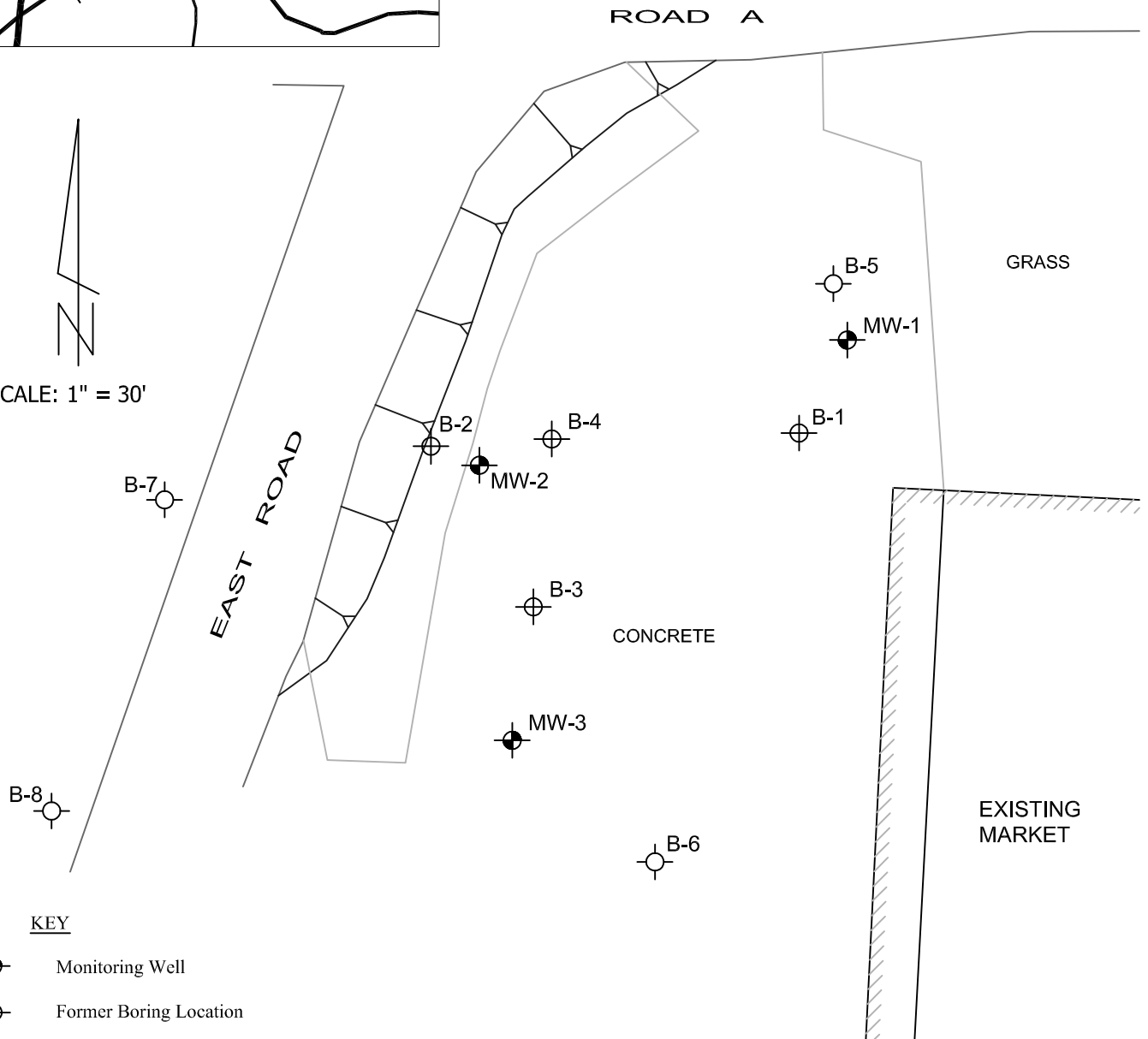
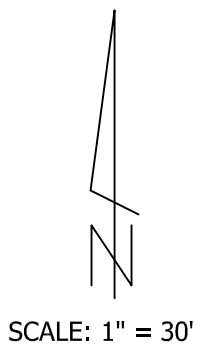
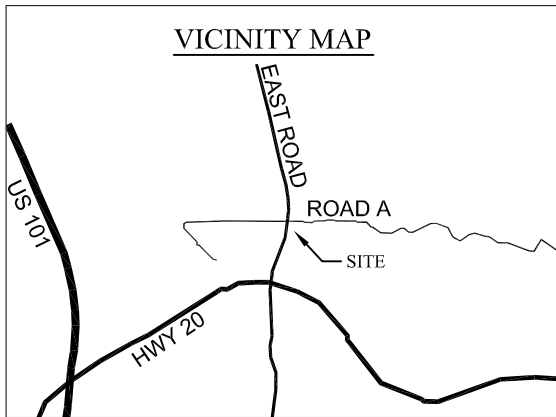
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APPENDIX A

PLATES

SITE PLAN

SEPTEMBER 2005



KEY



Monitoring Well



Former Boring Location

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PROJECT 722

SEPTEMBER 2005

LITTLE BAKERS MARKET

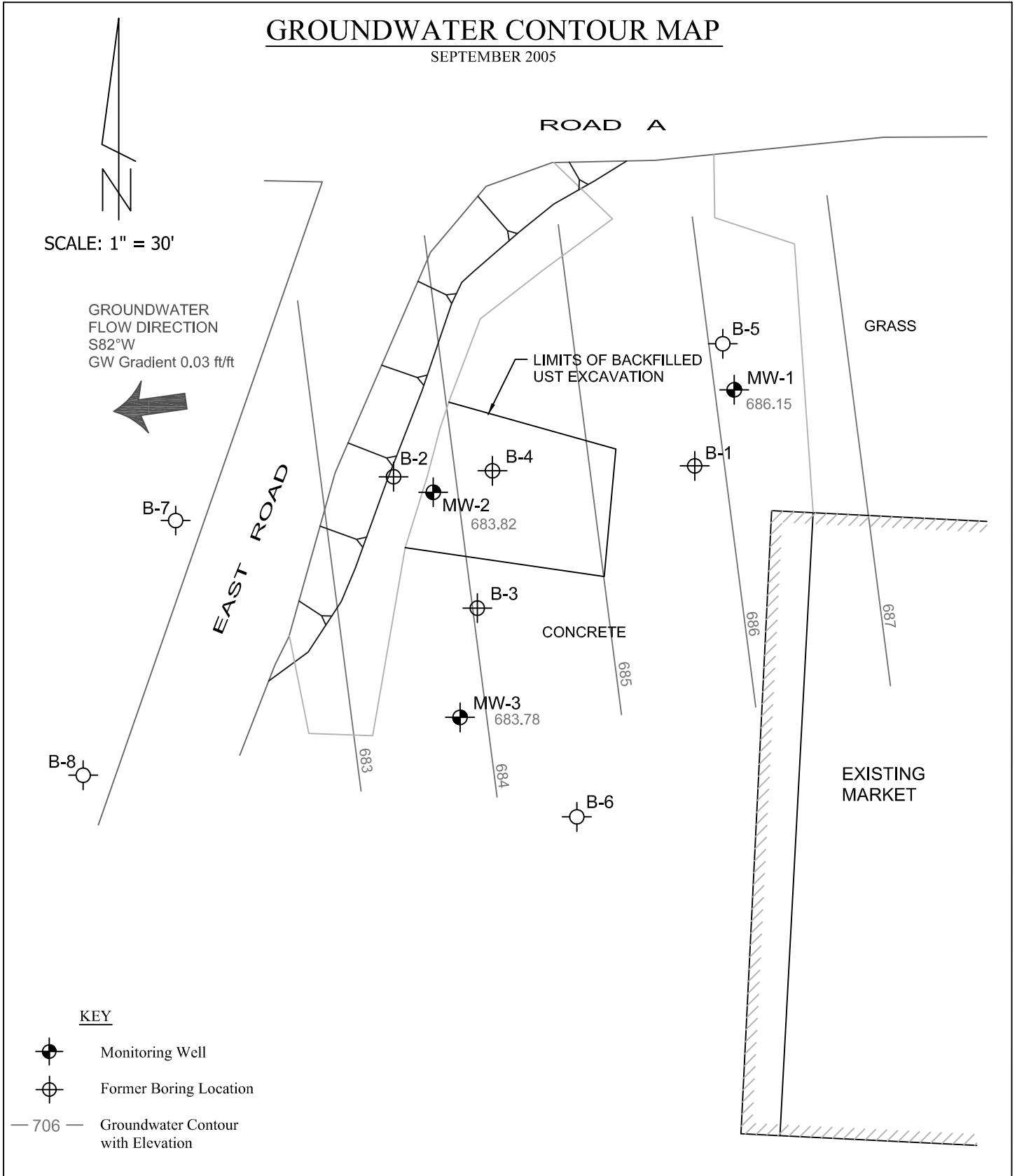
6951A EAST ROAD
REDWOOD VALLEY, CALIFORNIA

PLATE

1

GROUNDWATER CONTOUR MAP

SEPTEMBER 2005



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SEPTEMBER 2005

LITTLE BAKERS MARKET

6951A EAST ROAD
REDWOOD VALLEY, CALIFORNIA

PLATE

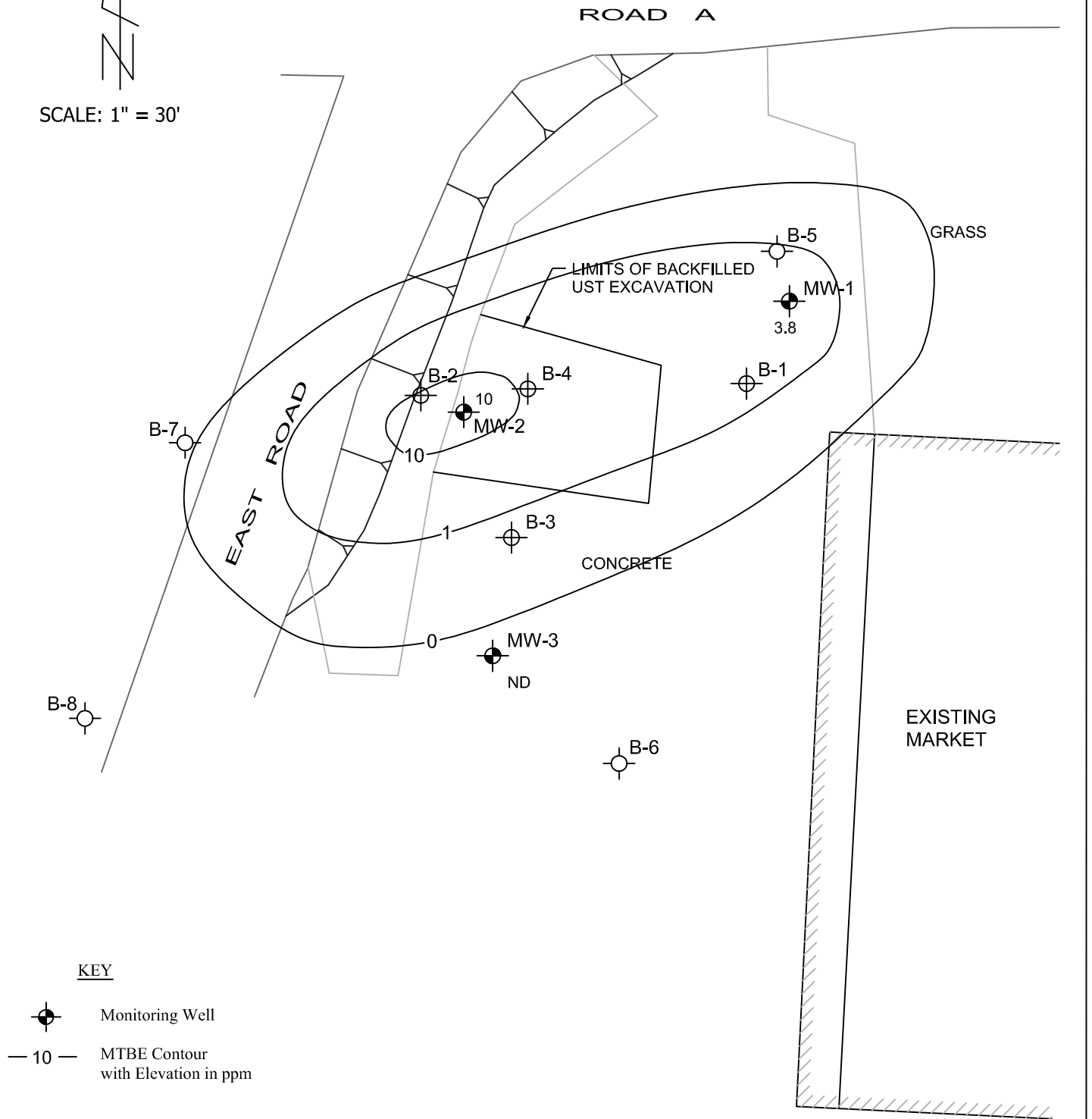
2

ISOCONCENTRATION MAP - MTBE



SEPTEMBER 2005



SCALE: 1" = 30'



KEY

-  Monitoring Well
-  MTBE Contour with Elevation in ppm

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SEPTEMBER 2005

LITTLE BAKERS MARKET

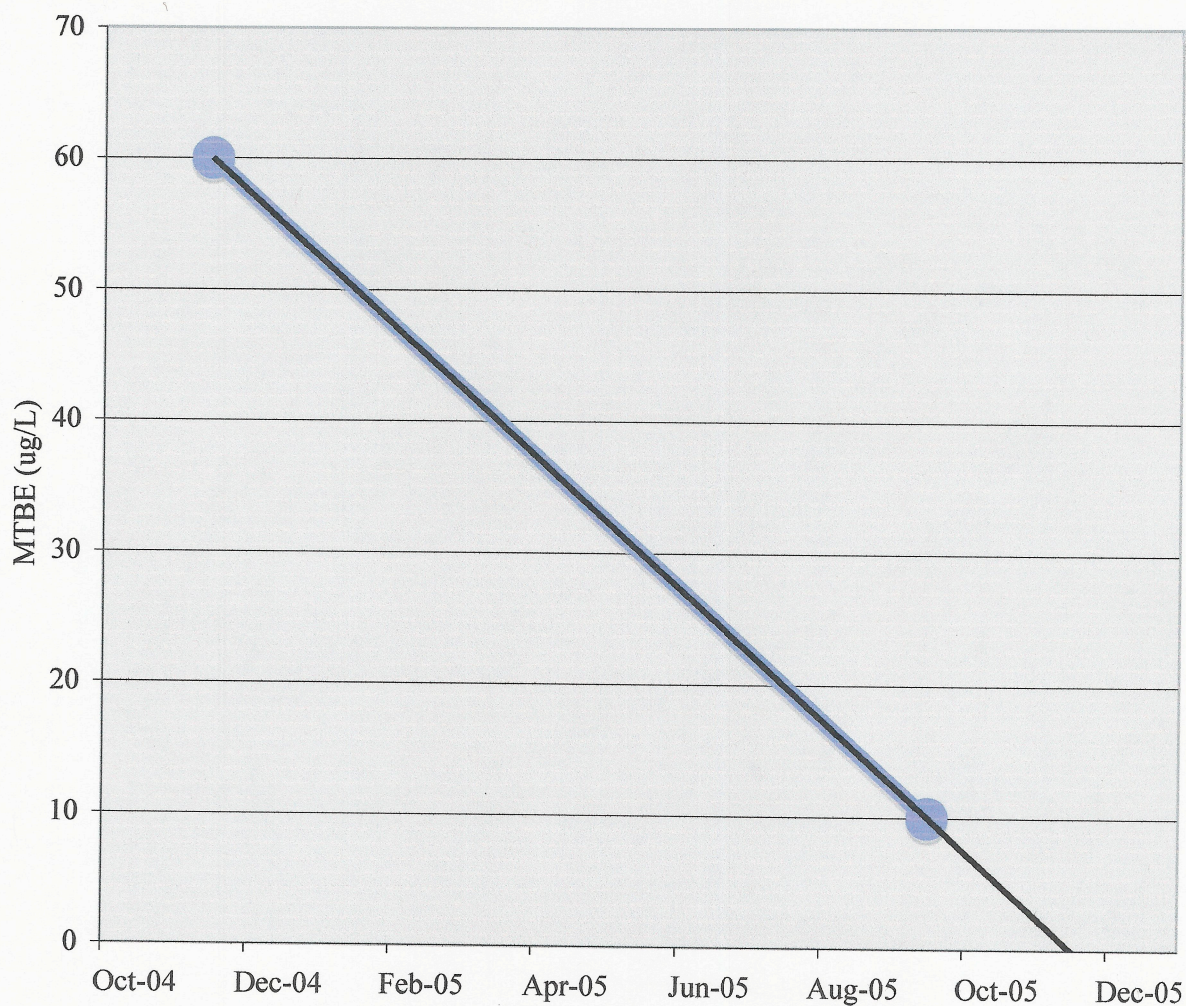
6951A EAST ROAD
REDWOOD VALLEY, CALIFORNIA

PLATE

3

PROJECTED MTBE CONCENTRATIONS IN MW-2

SEPTEMBER 2005



—●— Detected MTBE in MW-2

— Log. projection of MTBE in MW-2

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PROJECT 722

SEPTEMBER 2005

LITTLE BAKERS MARKET

6951A EAST ROAD
REDWOOD VALLEY, CALIFORNIA

PLATE

4

723

i.w.l. - 17.73

G.P. - 17.25

P.H. - 629/6.39/6.47/6.50

Con. - 939/957 / 1,000,990

t.d.s. - 462/480/499/503

Temp. - 71.2/68.5/72.5/69.8

turnp. - 273

i.w.l. - 17.50

G.P. - 9.3

P.H. -6.52 / 6.47 / 6.29 / 6.51

con. - 4164 / 4144 / 4135 / 4138

t.d.s. - 232 / 224 / 218 / 220

temp. - 69.4 / 67.5 / 65.6 / 66.9

thrb. - 170

i.w.l. - 17.30

G.P. - 11

P.H. - 6.43 / 6.42 / 6.44 / 6.21

con. - 334 / 395 / 344 / 352

Tds. - 175/198/170/175

temp. - 67.2 / 65.7 / 67.8 / 66.0

turb. - 334

get copy
well
log - S.W. 1/4
Havent
the
with
56' → what's
56' -
screened element
depth well - gal/natn capm 23' 10" 2
mapout the plane w/ well sides & 7' feet from hurn use calyp
Cable 0 East Rd 6957 E East Rd 7
1st 1st 35 to 40 yds - SE corner from 3/1/69 -

APPENDIX B

ANALYTICAL LABORATORY TEST RESULTS AND CHAINS OF CUSTODY



Report Date: September 21, 2005

Laboratory Report

Jim Glomb
Jim Glomb Consulting
152 Weeks Way
Sebastopol CA, 95472

Project Name: **Bleier - Little Baker's Market** **722**
Lab Project: **5090803**

This 7 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Laboratory Director



TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5090803-01	MW-1	Gasoline	ND	50

Date Sampled:	09/07/05	Date Analyzed:	09/09/05	QC Batch:	B000076
Date Received:	09/08/05	Method:	EPA 5030/8015		

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5090803-02	MW-2	Gasoline	ND	50

Date Sampled:	09/07/05	Date Analyzed:	09/10/05	QC Batch:	B000076
Date Received:	09/08/05	Method:	EPA 5030/8015		

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5090803-03	MW-3	Gasoline	ND	50

Date Sampled:	09/07/05	Date Analyzed:	09/10/05	QC Batch:	B000076
Date Received:	09/08/05	Method:	EPA 5030/8015		



Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5090803-01	MW-1	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	3.8	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)	
Dibromofluoromethane	22.6	113	70-130	
Toluene-d8	21.8	109	70-130	
4-Bromofluorobenzene	18.7	94	70-130	

Date Sampled:	09/07/05	Date Analyzed:	09/08/05	QC Batch:	B000073
Date Received:	09/08/05	Method:	EPA 8260B		

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5090803-02	MW-2	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	10	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)	
Dibromofluoromethane	22.5	112	70-130	
Toluene-d8	21.6	108	70-130	
4-Bromofluorobenzene	18.6	93	70-130	

Date Sampled:	09/07/05	Date Analyzed:	09/08/05	QC Batch:	B000073
Date Received:	09/08/05	Method:	EPA 8260B		



Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5090803-03	MW-3	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0
Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)	
Dibromofluoromethane	23.3	116	70-130	
Toluene-d8	22.1	110	70-130	
4-Bromofluorobenzene	18.5	92	70-130	
Date Sampled:	09/07/05	Date Analyzed:	09/08/05	QC Batch: B000073
Date Received:	09/08/05	Method:	EPA 8260B	



Quality Assurance Report

TPH Gasoline in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B000076 - EPA 5030

Blank (B000076-BLK1)

Prepared & Analyzed: 09/09/05

Gasoline	ND	50	ug/L
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Matrix Spike (B000076-MS1)

Source: 5090803-01

Prepared & Analyzed: 09/09/05

Benzene	10.0	0.50	ug/L	10.0	ND	100	70-130
Toluene	9.93	0.50	ug/L	10.0	ND	99	70-130
Ethylbenzene	9.94	0.50	ug/L	10.0	ND	99	70-130
Xylenes, total	29.6	1.5	ug/L	30.0	ND	99	70-130

Matrix Spike Dup (B000076-MSD1)

Source: 5090803-01

Prepared & Analyzed: 09/09/05

Benzene	10.1	0.50	ug/L	10.0	ND	101	70-130	1	20
Toluene	10.1	0.50	ug/L	10.0	ND	101	70-130	2	20
Ethylbenzene	9.94	0.50	ug/L	10.0	ND	99	70-130	0	20
Xylenes, total	30.0	1.5	ug/L	30.0	ND	100	70-130	1	20



Volatile Hydrocarbons by GC/MS in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000073 - Default Prep VOC										
Blank (B000073-BLK1)				Prepared & Analyzed: 09/08/05						
Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
m,p-Xylene	ND	1.0	ug/L							
o-Xylene	ND	1.0	ug/L							
Tertiary Butyl Alcohol (TBA)	ND	25	ug/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	ug/L							
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L							
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	ug/L							
Tert-Amyl Methyl Ether (TAME)	ND	1.0	ug/L							
Surrogate: Dibromofluoromethane	22.1		ug/L	20.0		110	70-130			
Surrogate: Toluene-d8	21.5		ug/L	20.0		108	70-130			
Surrogate: 4-Bromofluorobenzene	18.9		ug/L	20.0		94	70-130			
Matrix Spike (B000073-MS1)				Source: 5090806-01	Prepared & Analyzed: 09/08/05					
1,1-Dichloroethene (1,1-DCE)	18.5	1.0	ug/L	25.0	ND	74	70-130			
Benzene	24.5	1.0	ug/L	25.0	ND	98	70-130			
Trichloroethene (TCE)	26.0	1.0	ug/L	25.0	ND	104	70-130			
Toluene	26.4	1.0	ug/L	25.0	ND	106	70-130			
Chlorobenzene	25.1	1.0	ug/L	25.0	ND	100	70-130			
Surrogate: Dibromofluoromethane	22.1		ug/L	20.0		110	70-130			
Surrogate: Toluene-d8	21.7		ug/L	20.0		108	70-130			
Surrogate: 4-Bromofluorobenzene	18.6		ug/L	20.0		93	70-130			
Matrix Spike Dup (B000073-MSD1)				Source: 5090806-01	Prepared & Analyzed: 09/08/05					
1,1-Dichloroethene (1,1-DCE)	18.1	1.0	ug/L	25.0	ND	72	70-130	3	20	
Benzene	24.0	1.0	ug/L	25.0	ND	96	70-130	2	20	
Trichloroethene (TCE)	25.5	1.0	ug/L	25.0	ND	102	70-130	2	20	
Toluene	25.8	1.0	ug/L	25.0	ND	103	70-130	3	20	
Chlorobenzene	24.9	1.0	ug/L	25.0	ND	100	70-130	0	20	
Surrogate: Dibromofluoromethane	22.1		ug/L	20.0		110	70-130			
Surrogate: Toluene-d8	21.5		ug/L	20.0		108	70-130			
Surrogate: 4-Bromofluorobenzene	18.8		ug/L	20.0		94	70-130			



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference



Analytical Sciences
P.O. Box 750336, Petaluma, CA 94975-0336
110 Liberty Street, Petaluma, CA 94952
(707) 769-3128
Fax (707) 769-8093

CHAIN OF CUSTODY

LAB PROJECT NUMBER: 5090803

JIM GLOMB CONSULTING PROJECT NAME: Bever - LBSM

JIM GLOMB CONSULTING PROJECT NUMBER: 722

CLIENT INFORMATION

COMPANY NAME: JIM GLOMB CONSULTING

ADDRESS: 152 WEEKS WAY

SEBASTOPOL, CA 95472

CONTACT: JIM GLOMB

PHONE#: (707) 237-2703

FAX #: (707) 237-2659

TURNAROUND TIME (check one)

MOBILE LAB

SAME DAY

48 HOURS

5 DAYS

24 HOURS

NORMAL

☒

GEOTRACKER EDF: Y N

GLOBAL ID: _____

COOLER TEMPERATURE

°C

COC

PAGE _____ OF _____

ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPHs	BTEX	50x4	COMMENTS	LAB SAMPLE #
1	MW-1	9/7	1	Wt	4	✓	✓	✓	✓	5090803-01	01
2	MW-2	130	1	1	1	✓	✓	✓	✓	✓	02
3	MW-3	2	1	1	1	✓	✓	✓	✓	✓	03
4											
5											
6											
7											
8											
9											
10											
11											

SIGNATURES

SAMPLED BY: M. Buchanan

RELINQUISHED BY: J. Buchanan

RECEIVED BY LABORATORY: APL Pico

DATE: 9-8-05

TIME: 9:30

SIGNATURE

TIME

DATE

SIGNATURE